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Supporting Knowledge Clusters

An analysis of the organizational structures and policies of economic development agencies in Guelph, Kitchener-Waterloo, and Windsor

Subject key words: Economic Development, Organizational Structure, Economic Policy Waves

Geographical Keywords: Wellington County, City of Guelph, Essex County, City of Windsor, Waterloo Region, City of Cambridge, City of Kitchener, City of Waterloo

MPA Research Report

Submitted To

The Local Government Program

Department of Political Science

Western University

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August 2020

Abstract

Research Question: To determine if there is a correlation between the organizational structure of economic development agencies and whether these structures facilitate or hinder the success of development policies. To determine what factors other than the organizational structures of economic development agencies facilitate or hinder the success of economic development policies.

Methods Used: In this paper a review of the literature in municipal economic development was completed. Three case studies of economic development strategies for midsized urban areas in Southwestern Ontario were completed. The success of each urban areas economic development strategies was evaluated. The structure of each regions economic development agencies was determined. In addition, the economic development strategies of each urban area were evaluated for focus, coordination, and alignment with the three waves of economic development policies.

Findings: Ultimately, the organizational structure of an economic development agency did not seem to correlate with its success. The Region of Waterloo and the City of Guelph and the County of Wellington have different organizational structures but are both successful at supporting the implementation of development policies. The regions that were most successful incorporated all three waves of economic development policies. Their development plans were well focused, and the roles and responsibilities of all major stakeholders were coordinated. It was best if this coordination was organized through a single agency

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Introduction

All municipalities engage in economic development in some form. This paper examines how economic development policies are undertaken and whether the organizational structure of economic development agencies affects the policies which are implemented. Economic development is affected by a host of local, national, and international factors. To address these challenges, municipalities now need to collaborate with other stakeholders to identify a common regional economic development strategy. Well these regional networks are necessarily complex and difficult to measure, there are two common factors that seem to be correlated with successful economic development organizations. First, that there are organized communications between the agencies responsible for economic development and the various stakeholders. Second, that the economic development agencies are able to implement a policy portfolio to support a broad series of business needs.

The first part of this part of this paper examines the literature of regional economic development. Economic development has been trending away from industrial development to a service, creative, and knowledge-based economy. This has profound implications for how local governments attract economic development. The economy of Southwestern Ontario has benefited from its locational advantages which made it attractive to manufacturers. However, businesses are increasingly looking for areas which have good access to talent and are supportive of innovation. This means that industries

are clustering around areas which have reliable access to talent. This represents a big opportunity for municipalities, but the needs of these economic clusters are complex. Theorists have found that focusing on one facet of economic development, such as policies aimed at lowering the local costs operations or talent retention, are insufficient at creating sustained economic growth. Instead, municipalities will need to employ a policy portfolio that incorporates all three waves of economic development, and they need to coordinate the implementation of these policies.

Finally, this paper examines three case studies in Southwestern Ontario. Each of these case studies is a region of Southwestern Ontario that is focused on a particular type of economic development. Municipalities in Southwestern Ontario have a long history of successfully implementing policies from the first and second waves of economic development. However, some municipalities do not give adequate support policies which are designed to create knowledge networks and foster the growth of local talent. These networks are key to creating an industry cluster that is capable of competing globally. Finally, the complex organizational structures of some regions have meant that they have struggled at coordinating these policies.

Literature Review

Ontario's economic development in context

Economic development is often one of the key indicators through which municipal success is measured. As such, municipalities generally try to take an active role in attracting and retaining investment (Wolman, 1996). Municipalities hoping to encourage economic growth face two major challenges. The first is that economic growth is driven

by a series of overlapping and sometimes competing factors that external to municipal control. One of the major trends in the Canadian economy is the shift from manufacturing and resource development to a knowledge-based economy. Cheap transportation and a proliferation of trade agreements has meant that manufacturers, whom previously only need to compete with other Canadian firms and those in the United States, now need to be competitive globally (Oschinski, Chan, & Kobrinsky, 2014).

Southwestern Ontario, where all of the case studies are located, has long acted as Canada's manufacturing hub. This region has had enjoyed several "environmental factors" which make it a desirable location to locate. The first is that it has excellent transportation networks to the United States with several road, rail, and waterway border crossings. Second, is that it has a large and highly skilled workforce allowing for the manufacture of more complex products. Finally, historically the trade value between the American and Canadian Dollar have made it cheaper to manufacture in Canada (Boothe & Smith, 2018).

However, over the past twenty years the region has had to cope with severe economic headwinds. The first issue was the 2009 Great Recession which caused a global drop in the demand for manufactured goods. One of the steepest drops was in the United States which is where much of the demand for Ontario manufacturing is located (Oschinski, Chan, & Kobrinsky, 2014). Well demand has increased in recent years increased competition resulting form a more globalized workforce as meant that there has not been significant growth in the number of manufacturing plants in Southwestern Ontario.

The second issue that manufacturers in Southwestern Ontario have needed to contend with is a phenomenon known as Dutch Disease. Dutch disease occurs when an industry attracts a significant amount of foreign direct investment, normally caused by the exploitation of a new natural resource (Beine, Bos, & Coulombe, 2009). The extraction of oil from the Athabasca Oil Sands had the effect of pushing the value of the Canadian Dollar compared to the American Dollar. Well this was beneficial to the natural resource producers in other provinces, this raises the real cost of buying from Ontario manufacturers. This puts the Federal Government in a tough position, because policies that would lower the value of the Canadian Dollar also have the effect of suppressing the value of resource extraction industries (Beine, Bos, & Coulombe, 2009).

The Dutch disease phenomenon illustrates a common issue that arises in economic policies. Economic policy making does not occur in a vacuum. Development and growth Municipalities often view economic development as a zero-sum game where development in one municipality necessarily comes as the cost of another municipality.

Dividing gains is challenging largely because of perceptions that economic development is a zero-sum game. There is a disbelief that development in one community could benefit nearby communities. Indeed, geographic density may increase feelings of competition and distrust in potential partners. Johnson and Neiman (2004) find that as the number of municipalities in a metropolitan area increases, so does the perception of competition. Municipalities in such areas believe their neighbours are attempting to gain economic development opportunities at their expense (Spicer, 2015).

The Southwestern Ontario Marketing Alliance (SOMA) is a good example of this line of thinking. SOMA is an economic development alliance between the municipalities of Ingersoll, Perth, Stratford, St. Thomas, Tillsonburg, and Woodstock. It stretches across Elgin, Middlesex, Oxford, and Perth Counties (SOMA, 2020). Much of the economic activity in central Southwestern Ontario is based around London as its regional hub. However, London was not considered for membership in SOMA. This is because members of the smaller municipalities feared that because London was so much larger, much of the work conducted by SOMA would necessarily end up focusing on the city rather than the smaller municipalities. SOMA members held the belief that they competed with London and therefore working with them in an economic development alliance would not be in their best interest.

Economic development is one of the more organizationally complex areas of municipal responsibility. One reason for this is that economic development nearly always involves a number of policy actors. Local economic development initiatives often involve the Municipal Government, one or both the federal Government and the provincial Governments, private actors such as investors, corporations, and citizens, and other governmental departments or agencies (Peterson, 1981). Intragovernmental collaborations are most successful when the actors have a clear goal to achieve and one actor is able to take a championing role in the collaboration (Horak, 2012). Economic development by contrast has a highly unclear goal and the actors involved have a series of competing interests.

The first of the actors involved in economic development are private businesses and citizens. In democracies such as Canada all levels of Government have limited

powers to mandate economic development in a particular area. Rather, it is the investment of private businesses that are deterministic of many of the key indicators of economic development. By necessity, well private businesses may be critical to an area's economy, private businesses are primarily motivated by their own self interest. Adam Smith explained this well back in 1776:

It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their own-self interest [in trying to get these things]....We address ourselves, not to their humanity but to their self love, and never talk to them of our own necessities but of their advantage (Smith, 1776).

The second set of actors who are involved with economic development are the higher levels of Government. This includes the federal and provincial Governments and the various crown corporations and other government agencies which have a hand in economic development. The higher levels of Government are the only ones who are empowered to affect many of the external factors which are so key to regional economic development. The Federal Government has control over international relations and trade deals which have a strong effect on local economic factors. The Provinces hold many of the key regulatory and decision-making powers that are key to economic development. For example, one of the key factor businesses consider when deciding where to invest is the transportation networks available in a particular area. The decisions on the expansion and location of these transportation networks is under the purview of the Provincial Government. Municipalities are forced to lobby to ensure important projects are a priority but there is no guarantee of success.

The final actor in municipal economic development is the municipalities themselves. In Canada, municipalities are creatures of the Provinces which means that, while they are the party that is most interested in regional economic development, they have the least number of powers of all the actors to accomplish that goal. Provincial governments have given municipal governments only limited powers to offer businesses financial incentives. This is to prevent a race to the bottom where the incentives required to attract businesses are high enough to cancel out the economic benefits (Sancton, 2011). In Canada, the role of municipalities has expanded greatly over the last twenty years. Previous governance paradigms had a very structured top down approach, where the Provinces would dictate municipal policy and municipalities would be tasked with implementing those policies. Paul Peterson in his highly influential article “The interests of the Limited City” argued that restraints placed upon cities relegates them to relatively minor role. Businesses often cite three factors when determining investment decisions: capital, talent, and land. Of these three municipalities only have control over the land within their borders and as such are limited to an allocation role (Peterson, 1981) However, others argue that municipalities do have greater control over their own destinies.

It is well understood that an economic development officer can no more create jobs than King Canute could control the tides. Global, national, regional, and local factors all come in to play which are simply beyond anyone’s control. Tides may be beyond anyone’s ability to control, but waves can be ridden. There is a difference between a good surfer and a bad surfer. (Strategy Corp, 2015)

Municipalities have become more active in a facilitator role. Municipal governments would work collaboratively with government agencies and private actors to find a regulatory system that worked for their goals (Taylor & Bradford, 2019).

Three waves of Economic Development

The literature on economic development strategies recognizes that development policies have gone through three distinct waves (Olberding, 2002) (Lowe & Feldman, 2018) (Stimson, Stough, & Roberts, 2006) (Blakely & Leigh, 2013). The first wave of economic development is focused on industrial development or “smokestack chasing.” The first wave was first seen in the 1930s as a response to the Great Depression. This strategy of economic development is centered around lowering the costs for businesses. Economic development policies were designed to lower the costs of land, buildings, taxes, and labour. (Olberding, 2002) Policies were also designed to push development out away from the major urban centers to encompass the broader region. In Canada, municipalities took a limited role in the implementation of this wave of economic development, with many of the key powers at the sole discretion of the provincial governments (Strategy Corp, 2015).

The second wave of policies began in the 1970s when globalization and trade liberalization increased competition and manufacturing became a less important part of the North American economy. Municipalities that still relied on first wave policies would have to increase the financial incentives to a point where the municipality would no longer realize the economic benefits of having a company located in their community. Second wave policies embraced a much stronger role of municipal governments in business decisions (Olberding, 2002). These policies included entrepreneurial support services

such as business plan consultations, providing advice on government regulations, permits, and incorporation assistance, and providing coaching, seminars, and other training opportunities (Strategy Corp, 2015). In short, this strategy involved municipal governments taking an active role in businesses and helping them identify potential markets and investment opportunities.

The first two waves of economic development policy offered different prescriptions for the policies that should be undertaken to support businesses. Neither of these waves, however, considered the regional environment of each municipality or the organization of economic development agencies. The third wave of economic development policies was not focused on what governments could do to support individual businesses, but rather how to create organizational networks that could provide the foundation for economic development (Ross & Friedman, 1990) (Olberding, 2002). The third wave of economic development roles focuses on assisting local groups in collaborating with each other rather than the municipality helping individual businesses (Strategy Corp, 2015). For example, the city of Ottawa has created an innovation and technology hub that brings together innovators, entrepreneurs, industry leaders, and investors. The centre provides a mashup of technical, business, and market capabilities, resources, and expertise that helps technology entrepreneurs and companies launch, grow, and thrive (Bayview Yards, 2020).

The third wave of economic development coincides with the rise of the cluster argument of economic development. First popularized by Michael Porter in 1998, this theory argues that businesses will want to cluster to gain economic advantages.

Today's economic map of the world is dominated by what I call clusters: critical masses – in one place – of unusual competitive success in particular fields. Clusters are a striking feature of virtually every national, regional, state and even metropolitan economy, especially in more economically advanced nations....clusters are not unique, however, they are highly typical—and therein lies a paradox: the enduring competitive advantages in a global economy lie increasingly in local things—knowledge, relationships, motivation—that distant rivals cannot match (Porter, 1998).

This theory was expanded by Richard Florida who found that cities which had been hubs for manufacturing growth in the American rustbelts were declining. Whereas regions which high tech industry such as San Francisco and creative centers such as Chicago were growing. Florida argues that it is the talent pool that is more important to economic development than financial incentives. Previous economic development strategies focused on providing lower costs, but Florida found that companies will endure higher costs to locate in areas with good talent pools and institutional knowledge (Florida, 2003).

The policies of economic development agencies now have to realize that the factors of economic development have changed. Because the Canadian economy is increasingly oriented to non-tangible assets, the locational constraints of earlier eras such as good transportation links or easy access to raw materials no longer carry the same economic weight (Gertler, 2001). Instead, it is a municipalities access to a knowledge base that is a stronger driver of economic development. Studies in Europe and the United States found that municipalities that had a larger percent of their population working in knowledge-based industries overperformed relative to the size of their populations. The

only exceptions to this trend were the major metropolises of London and Paris (Lever, 2002).

Literature on economic development has conceptualized these waves of economic development as distinct times eras where only that wave of policies is in usage. Some scholars have argued that municipalities, especially midsized municipalities, have limited resources and that policies associated with the older waves of economic development should be pushed aside. This argument has particular strength with regards to industrial recruitment where first wave policies have been found to be insufficient for municipalities to reach their economic development goals (Rubin, 1988). Given municipalities limited resources, especially in small to medium sized municipalities, they should focus on the policies which have been demonstrated to be more effective. The reality is, however, is that well municipalities do have limited resources successful economic development requires strategies from all three waves of economic development. More established firms that are hoping to invest in a particular area require first wave policies which reduce the costs of doing business and locally grown firms require the entrepreneurial supports of the second wave. Both of these types of businesses will be more successful if a municipality can foster the innovation networks advocated by the third wave of economic development strategies.

To effectively encourage economic development, scholars have argued that municipalities should adopt a policy portfolio that incorporates all three waves of economic development (Lowe & Feldman, 2018). However, outside of major metropolises, such as Vancouver, Toronto and Montreal, economic development agencies will not have access to the resources to employ all of these strategies at the

same time. To overcome this lack of resources, small and medium sized municipalities will need to focus their development on particular economic sectors (Markusen & Schrock, 2006). These specialized policy portfolios offer municipalities two distinct advantages. First, they offer a substantial reduction of risk if one aspect of the economic development strategy underperforms. We have seen in this paper how economic development outcomes are often determined by external factors to the municipality. Optimal implementation of an economic strategy will not necessarily lead to successful policy outcomes. Second, specialization also offers the opportunity to drive policy coherence by encouraging practitioners to create an integrated economic development agenda. Economic development is a complex undertaking that will involve a large number of different stakeholders. Integrated policy portfolios can provide guidance to these stakeholders, encouraging them not to only work on their particular policy outcomes but for the broader economic strategy (Lowe & Feldman, 2018).

It is incredibly challenging to measure how successful an economic development agency is. Since economic growth is determined by such a large number of factors, many of which is external to the municipality, it is extremely rare that causation of any successes or failures can be attributed to municipal economic strategy (Wolman, 1996). However, case studies have identified factors that may lead to a more successful economic growth outcome. First, the different agencies which are responsible for economic development need to agree upon a certain strategy. Agencies should have a clear idea of what are the goals of the municipality and how they are going to reach them (Moloney & Octaviani, 2016) (Horak, 2012). Successful agencies will also have clear and formalized lines of communication between relevant stakeholders and other agencies. Economic

development is an inherently complex undertaking and agencies should be able to understand what other agencies are pursuing. For successful economic growth responsibility overlap should be minimized as much as possible, which means that each economic development agency should have a clearly defined role (Moloney & Octaviani, 2016). Finally, any economic development will involve coordination with relevant stakeholders, other agencies, municipalities, and different levels of government. It should not be assumed that these agencies are working together effectively. Even when both the goals and roles of the agencies are defined, these agencies still need to make an active effort to communicate and work in tandem with other economic development agencies (Moloney & Octaviani, 2016) (Horak, 2012).

Methodology

Measuring the successes or failures of economic development agencies is extremely challenging. Since many of the factors that affect municipal economic development are external, it is often not possible to correlate economic growth with the actions of economic development agencies. Quantitative factors, such as GDP, median income, and population growth typically can be more attributed to the Provincial or National economy rather than the actions of the municipality in question.

Given the number of factors which can affect economic development any evaluation which solely looked at outcomes would be flawed. However, we can evaluate whether economic development agencies are using a good mix of policies and they are effectively coordinating with other stakeholders. Globalization

To assess economic development agencies this paper examined three regions in Southwestern Ontario. These were the Region of Waterloo, Guelph-Wellington, and

Windsor Essex. Each of these cases are considered to be midsized urban areas with populations between 200,000 and 500,000 people. Each of these regions act as a hub for an industry cluster. The Region of Waterloo is focused on information technologies, Guelph-Wellington is focused on agriculture, and Windsor-Essex is a hub for the automotive sector.

To examine these regions economic development agencies an assessment of their economic development strategies of each stakeholder was conducted. A strategic plan should incorporate policies from all three waves of economic development. This is so that a municipality can support both the major firms that form the backbone of an economic cluster and smaller more innovative firms. Second, this paper examines which organizations are responsible for implementing these policies. Is it a singular agency or a number of different ones working together? If it is multiple agencies how are those agencies coordinating to ensure that the strategy is implemented in a coherent way?

Challenges

Ideally to determine whether an economic development agency is successful it should be measured against its own goals. Since quantitative measurements are affected by such a large number of uncontrollable variables any evaluation of agency performance that relied on quantitative measures will necessarily be flawed. To identify what each municipalities' economic development goals were, this author had hoped to conduct interviews with multiple key informants in each case study. Unfortunately, the Covid-19 pandemic meant that these interviews were no longer feasible to complete in the scope of the project. The documentation review has allowed the author to make informed guesses as to whether these municipalities are achieving their own development goals.

However, more research is needed that incorporates interviews with key stakeholders to verify these findings.

Region of Waterloo

Regional Profile

The Region of Kitchener-Waterloo is located approximately 100km from the City of Toronto. The Region consists of the cities of Kitchener, Waterloo, and Cambridge as well as the townships of Woolwich, Wilmot, Wellesley, and North Dumfries. The regional population is 523,894 people as of the 2016 census (Statistics Canada, 2016). This represents a growth of 5.5% since the 2011 census. Between 2011 and 2016 the Province of Ontario grew at a rate of 4.0% (Statistics Canada, 2016).

The median income in the tri-cities area was 77,229 as of the 2016 census. This represents a growth of 1.4% however, this growth is largely driven by the smaller townships. The average income in the city of Waterloo actually declined by 1.6% between 2005 and 2015 (Statistics Canada, 2016). Between 2011 and 2015 the number of low-income residents, defined as a fixed percentage of the median income of a region, held steady of around 15%. This percentage has been consistently a lower number when compared to Canada's and Ontario's percentage of low income residents (Waterloo Economic Development Corporation , 2018).

The Region of Waterloo has a GDP of 29 billion Canadian as of 2018. Before the COVID-19 pandemic severely restricted the economy, the regional GDP was projected to grow at a rate of 2% per year to 30 billion by 2022. The regional economy is diversified across several different industries including advanced manufacturing, information and communications, aerospace, and automotive engineering. The Region of Waterloo is

home to greatest clustering of information technology firms in all of Canada. Financial firms, headquartered in Toronto, have placed research and development subsidiaries in the Region of Waterloo. Finally, Waterloo Region has a robust agricultural sector which includes over 1300 farms and numerous food processing plants. Agrarian sciences are supported by the Conestoga College Institute of Food Processing Technology and the Ontario Agriculture College (Waterloo Economic Development Corporation , 2018).

The Region of Waterloo has several locational advantages which contribute to its economic development. It is located close to Canada's and Ontario's economic hub in the City of Toronto. In 2015 the Toronto Go transit system was expanded to provide a direct link between Toronto and the Waterloo Region. Like the other case studies in this paper it is located along the 401 highway which is one of the main economic connections between Canada and the United States.

The Region of Waterloo is home to the University of Waterloo, Wilfred Laurier University, and Conestoga College. Notably the University of Waterloo is consistently highly ranked and was rated as Canada's most innovative in 2020 (Maclean's , 2019). These higher education institutions are among the regions most significant economic advantages. The University of Waterloo has the largest Co-op program in the World, with 19,800 students employed at 6,700 employee partners (Waterloo Economic Development Corporation , 2018). This focus on co-op programs gives the Region of Waterloo access to a talent pool that is both highly trained and experienced.

The talent pool of the Region of Waterloo is further fostered with a robust network of industry support organizations designed to encourage entrepreneurship. Communitech is an organization which helps to train new technology enterprises on business

requirements such as financing and legal services. Communitech also provides mentorship to new companies to help them remain innovative and ahead of the curve. The Accelerator Centre is designed to help foster new sustainable innovations. In cooperation with FedDev Ontario, they provide mentorship to start up tech firms and provide up to \$30,000 dollars in seed capital. These programs are now being expanded to international start up firms who want to operate in the Waterloo Region (Waterloo Economic Development Corporation , 2018). This focus on fostering a local cluster of technology development is modeled on Stanford University's investments into Silicon Valley in the 1970s.

Regional Economic Development

Until 2016, economic development in the Region of Waterloo was comprised of a piecemeal system that incorporated a series of disparate government agencies, non-government organizations (NGOs), and not-for profits. The three major urban centers in the region, Waterloo, Kitchener, and Cambridge, each had their own economic development department with different focuses. The City of Waterloo has a heavy focus on the tech sector. As the home of the the University of Waterloo and Wilfred Laurier University in addition to the David Johnson Research and Technology Park, much of the regional Tech sector is focused on this city. The City of Kitchener's focus is on service industries, regional administration, and on culture and tourism. Finally, the City of Cambridge has been focusing its economic development on manufacturing and the development of Greenfield sites. As the region continues to grow its advanced manufacturing sector, much of that development will be concentrated in the City of Cambridge (Malone Given Parsons Ltd., 2013).

In addition, to the cities economic development departments there were three NGOs which were tasked with attracting economic development at the Regional level. These NGOs were Canada's Technology Triangle (CTT), the Creative Enterprise Initiative, and Explore Waterloo Region. CTT's mandate was to attract foreign investors to the Waterloo Region and to support the businesses which had chosen to locate within the region. Over its twenty five years in operation CTT was successful in landing over a hundred investment deals in the Waterloo region (Paige, 2015). CTT was not empowered with the mandate or the resources to employ a strategy which focused on major industrial firms. Instead, the focus was on attracting small to medium sized companies which could invest in Waterloo relatively easily and expand over time. CTT would support these businesses by facilitating research and development connections with the University of Waterloo and the other higher educational institutions in the area (Bramwell & Wolfe, 2006). The Creative Enterprise Initiative was created in 2010 to act to attract and support creative and artistic enterprises in the Waterloo Region. "Our mission is to make Waterloo a destination...by initiating and sustaining outstanding creative enterprises" (City of Waterloo, 2012). However, the Creative Enterprise Initiative struggled with an unclear mandate and was unable to provide the artistic community with the supports that they actually needed to be successful (Snobelen, 2016). Finally, Explore Waterloo Region, formerly known as the Waterloo Regional Tourism Marketing Corporation, is a non-profit organization responsible for marketing the Region of Waterloo tourism to increase the number of visitors and their length of stay. Explore Waterloo Region works with local partners to promote festivals, and events as well as local restaurants, hotels, and attractions (Explore Waterloo Region, n.d.).

There is no doubt that the Region of Waterloo was successful in the time leading up to the creation of the Waterloo Economic Development Corporation. However, there were concerns that this decentralized framework would soon be unable to serve the needs of regional municipalities.

The City of Waterloo has never had a comprehensive economic development strategy and therefore lacks a clear and distinct vision of where it wants the local economy to go or how it proposes to get it there. In part, this has meant that the responsibility – and credit – for past success has not been spread evenly across all of the community's interests, agencies, and institutions. In the future, this must change. As a result, the City's role in and responsibility for the economic success of the past is arguably quite limited: it has been an observer on the sidelines. Although it has been supportive in many ways, the City has been a follower – rather than a leader – in economic development terms (Cleave, Arku, & Chatwin, 2017)

The Region of Waterloo had been remarkably successful in establishing itself as "Canada's Silicon Valley." However, Waterloo was facing increasing competition from a number of municipalities including Toronto, Ottawa, Detroit, and Boston (Mentor Works, 2012).

Although Kitchener remains one of the leading engines helping to fuel Ontario's Golden Horseshoe, it is undeniable that our economic landscape has shifted – and continues to do so. In the wake of the recent global financial crisis, municipal governments are faced with the challenges of an uncertain economy and increased demand for accountability. This emphasis on fiscal responsibility and

efficiency requires us to be creative, to develop new and innovative approaches, and to find and cultivate new opportunities (Willmer, 2014).

To examine these concerns in 2012, with the support of all seven of the regional municipalities, the Region of Waterloo commissioned a study entitled “Waterloo Region Economic Development Study: Assessment of Economic Development Services and the Provisions of Employment Lands.” The purpose of this study was to evaluate the municipal delivery of economic development services and, should any deficiencies be found in the delivery of these services, provide options for a revised regional approach (Willmer, 2014). This report found that the Region of Waterloo had been successful in leveraging its geographic and economic advantages, but long-term growth was threatened by this uncoordinated approach. The report identified six key weaknesses with the decentralized approach used by the Region of Waterloo: an absence of a coordinated regional approach; gaps in data collection, analysis, and info sharing; dated and fragmented branding and marketing; resource disparity between rural and urban municipalities; trust issues; and poor alignment of stakeholder understanding of economic development (Malone Given Parsons Ltd., 2013). Economic development within the region of Waterloo was characterized as splintered and that there was a lot of wheel spinning. Stakeholders identified that there was a proliferation of agencies whose mandates included economic development. Agencies were noted as working well together on a particular initiative but lacked the coordination to implement a broader strategy. Regional economic development was primarily focused on the tech sector, which in turn meant that most of the initiatives focused on Kitchener and Waterloo.

Stakeholders had identified a desire to expand beyond the tech sector, but the current institutional framework was not set up to do that (Malone Given Parsons Ltd., 2013).

Following the recommendations of this report, economic development within the Region of Waterloo was redesigned to address these strategic weaknesses. Several options were provided including maintaining the status quo or creating an economic development agency which would be responsible for all regional economic development.

The approach that was favoured by the study and eventually adopted by the Region of Waterloo was a mixed approach. The Region of Waterloo and the lower-tier municipalities created the Waterloo Region Economic Development Corporation (WREDC). The WREDC is responsible for the management of the regional economic strategic plan and coordination with other stakeholders; investment attraction to the Waterloo Region; liaison with the Federal and Provincial Governments; marketing the region; key talent attraction and development; data consolidation and research to support economic development activities; and the coordination and collaboration of Area municipalities in retaining and supporting the expansion of “regional scale businesses” (Willmer, 2014). Several agencies which previously had an economic development mandate such as the CTT and the Creative Enterprise Initiative were closed, and their responsibilities were placed under the umbrella of the WREDC.

The lower tier municipalities retained their economic development departments, whose mandates were adjusted in response to the new strategic role of the WREDC. Rather than developing and pursuing their own strategies, economic development departments would now act in implementing economic development opportunities. For example, the City of Kitchener’s economic development department is responsible for the

following areas: community promotion; Land and real estate development; point of contact for businesses into Area Municipal Governance (i.e. zoning); cluster development and business retention and expansion activities; investment attraction and collaboration with WREDC; ensure area municipal government activities are aligned with the Regional Economic Development strategy; establish protocols for dealing with investors within the Area Municipal Organization; and supporting economic development infrastructure and strategy (Willmer, 2014).

Analysis

As discussed in the literature review, successful economic development strategies are correlated with effective usage of policies in all three waves of economic development (Olberding, 2002). There is ample evidence that the Region of Waterloo has been able to do this. The Region of Waterloo provides incentives for the conversion of former industrial lands which are often already close to municipal centers. These incentives are designed to focus economic development in the Region to areas which are well served by transit since the completion of the ION rapid transit service (Waterloo Economic Development Corporation , 2018). The Region of Waterloo also makes good use of second wave policies to advocate for its business community. In 2018 the WREDC conducted trade missions to Germany, the United Kingdom, California, Massachusetts, and New York. These trade missions were focused to areas that whose investment opportunities were aligned with the Region of Waterloo's economic strengths (Waterloo Economic Development Corporation, 2018). Finally, the Region of Waterloo has invested heavily into creating a knowledge network for information technologies.

The organizational structure of the WREDC has allowed to create a comprehensive economic plan for the Region of Waterloo. Economic development in the Region has benefited by the efforts of the University of Waterloo and other stakeholders to create a knowledge network for information technology. The Region was able to recognize that this system would no longer be sufficient in the face of increased competition from other jurisdictions (Malone Given Parsons Ltd., 2013). The structure of the WREDC provides the Region of Waterloo with several benefits. The organizational structure clearly defines the roles of all of the economic stakeholders. This allows for the reduction of redundancy and focuses practitioners. Crucially this creates a centralized agency which can communicate with external stakeholders. Businesses have cited confusion about which government agency they should direct enquiries to as a reason for not locating in Canada.

Guelph-Wellington

Regional Profile

The City of Guelph is located 100km west of the city of Toronto, around thirty kilometers north of the Region of Waterloo. It is the seat of Wellington county, but it is politically independent from it. The county of wellington encompasses the lower tier municipalities of Centre Wellington, Erin, Guelph-Eramosa, Mapleton, Minto, Puslinch, and Wellington North. The City of Guelph is one of the fastest growing cities in Ontario. It had a population of 131,794 as of the 2016 census compared to a population of 121,688 as of the 2011 census. This is a growth rate of 8.3% which is nearly double the provincial growth rate of 4.6% (Statistics Canada, 2016).

The City of Guelph was separated from Wellington county in 1879. Wellington County encompasses the townships of Centre Wellington, Erin, Guelph/Eramosa, Mapleton, Minto, Puslinch, and Wellington North. The population of the county was 90,932 as of the 2016 census (Statistics Canada, 2016). Wellington County is primarily rural due to a long-standing planning philosophy that the County should remain rural and Guelph should remain urban. There have been attempts to reintegrate Guelph back into the county to facilitate ease of governance. However, these attempts have failed due to Guelph's large population relative to the County. Previous urban-rural mergers had ended with the city overwhelming the rural townships and Guelph found the required underrepresentation to mitigate this to be unacceptable (Spicer, 2016).

The median income in Guelph was 37,540 as of the 2016 census. Guelph has a labour participation rate of 70.4% and an unemployment rate of 6.1%. Guelph had a GDP of 9.87 billion as of 2018. Before the Covid-19 pandemic GDP was projected to grow by 2.15 percent per year to 10.7 billion by 2022. Guelph has a highly diversified economy which stabilizes its long-term growth predictions. In 2018 manufacturing accounted for 20% of the jobs in Guelph. The next largest job categories were retail employment and educational services, at 14% and 12% respectively. This means that Guelph's economy will not be significantly harmed by a downturn in any one industry.

Guelph is located between the Region of Waterloo and the City of Toronto. The larger area, known as the Greater Golden Horseshoe, is Canada's largest population center. This provides several economic advantages to the City of Guelph. It has excellent highway and rail connections to the rest of Canada and the United States. It is located only an hour away from Pearson international airport.

Guelph is home to the University of Guelph which is one of Canada's leading universities. Guelph is also home to a small campus of Conestoga College, though there are plans to significantly expand this campus. The city of Guelph also hosts the Ontario Agricultural College and the Ontario Veterinary College. The Ontario Veterinary school was ranked 7th in the world, and the Ontario Agricultural College was ranked 17th in the world in 2017 rankings put out by Quacquarelli Symonds (University of Guelph, 2018). The University of Guelph hosts the John F. Wood Centre for Business and Student Enterprise. This centre provides entrepreneurial mentorship for students and pairs with them with local businesses.

Regional Economic Development

Like the Region of Waterloo before it was amalgamated under the WREDC, economic development is managed by a complex series of government departments, crown corporations, and not for-profits. This system is further complicated because the City of Guelph is separated from Wellington County. The City of Guelph and the County of Wellington both have their own separate economic development departments.

These departments are supplemented with several non-profit business corporations aimed at stimulating economic growth in Guelph. The Guelph-Wellington Business Centre was founded in 1999 and provides resources for start up businesses in Guelph and Wellington county. The centre receives funding from both the City and Wellington County as well as the Province of Ontario (Guelph Wellington Business Centre, 2020). Innovation Guelph was founded in 2010 and like the Business Centre also provides resources for business start-ups. However, Innovation Guelph is focused on technology businesses such as agri-innovation, information and communication

technologies, advanced manufacturing, and clean tech (Innovation Guelph , 2020). Innovation Guelph receives founding from the City of Guelph, Wellington County, Ontario, and the Canadian Government. Finally, Grow Guelph is a partnership with the University of Guelph and the City of Guelph. Grow Guelph's mandate is focused on business retention. To do this Grow Guelph works to connect businesses with different organizations depending on their specific needs. It is hoped that this initiative can effectively create a local network of businesses which can support the corporate community.

Analysis

Successful economic development strategies incorporate policies from all three waves of economic development. The City of Guelph and the County of Wellington have done a good job of advocating for land use decisions and infrastructure development to ensure the continued viability of agricultural lands (Spicer, 2016). A business park has been built on 66 acres of land located close to Downtown Guelph, the University of Guelph, and the 401 Highway. Second wave economic development policies involvement entrepreneurial support to assist businesses to expanding and finding new markets (Olberding, 2002). Organizations such as the Guelph Wellington Business Centre and Innovation Guelph are demonstrative of Guelph's commitment to second wave policies. Policies associated with the third wave of economic development are focused on attracting talent and creating networks of organizations and stakeholders to provide an economic foundation (Olberding, 2002). Guelph has done a good job of facilitating engagement between businesses, academia, and other stakeholders. The programs at the University of Guelph such as the Ontario Agricultural college and the John F. Wood Centre for Business foster a knowledge network in Guelph.

The Strategic Plan for the Guelph Agri-innovation Cluster is highly detailed and includes specific actions to foster economic development. Both the City of Guelph and the County of Wellington have separate economic development plans but, while they cooperate well, there is no organization responsible for regional economic development. There does not appear to be a process to determine if the economic development plans are succeeding. In the March 2010 report entitled: “Prosperity 2020” the following statement is made:

Emerging trends and local issues argue Guelph has significant work to do to improve its competitiveness. The City is not seen as particularly welcoming or friendly to business. It is not top-of-mind as a centre for business or innovation as compared to, for example, a Waterloo or Markham. With a number of entities engaged in business development in different sectors and no clear divisions of responsibility, senior governments are unsure as to where to direct enquiries or initiatives. Guelph becomes a more difficult and less compelling place in which to invest as a result (Malone Given Parsons LTD., 2010).

The City of Guelph and the County of Wellington won the \$10 million dollar prize for the Smart Cities Challenge in 2019 for their entry entitled: “Our Food Future.” The Smart Cities Challenge was a Government of Canada initiative to empower communities to improve the lives of their citizens through innovation, data and connected technology (City of Guelph & County of Wellington, 2019). The goals of “Our Food Future” are as follows:

To increase access to affordable, nutritious food by 50 percent, create 50 new circular businesses and collaborations and increase circular economic revenues

by 50 per cent by recognizing the value of “waste” – all by 2025 (City of Guelph & County of Wellington, 2019).

Winning the Smart Cities Challenge is evidence that the City of Guelph has addressed some of the problems identified in the Prosperity 2020 report. However, there no lead agency and no formal mechanism to foster collaboration between agencies involved in economic development. Other than the success of winning this award, I could not find evidence that they are attempting to address the coordination of economic development agencies in a systemic way.

Windsor-Essex

Regional Information

Windsor is located on the Canada US border immediately across from Detroit, Michigan. Windsor is geographically located in Essex in county but, as with the City of Guelph, is politically distinct from it. Essex county contains the lower tier municipalities of Amherstburg, Kingsville, Lakeshore, LaSalle, Leamington, Tecumseh, and Essex. Windsor has a population of 217,188 as of the 2016 census compared to a population of 210,891 as of the 2011 census. Essex county had a population of 181,530 as of the 2016 census (Statistics Canada, 2016) However, between 2006 and 2011 the population actually declined from 393,000 to 388,000. This meant that the population decreased by around 1.2% per year (Windsor-Essex County Health Unit, 2012).

The median income in the City of Windsor was 57,977 as of the 2016 census. If one includes Essex County the average income raises to 63,848 (Statistics Canada, 2016). As of 2015, 17.5% of residents were living in low income households from 14% in 2005. Between 2005 and 2015 the median income in Windsor has dropped by 6.4% which

has been attributed to the loss of manufacturing jobs (CBC News, 2017). Windsor has roughly the same unemployment rate as the Province of Ontario at approximately 7.4%. However, Windsor Essex has a labour force participation rate of only 60.2%. This is significantly lower than the Provincial average of 64.7% (Statistics Canada, 2016).

Windsor had a GDP of 15.1 billion Canadian as of 2018. Before the Covid-19 pandemic, GDP was expected to grow at a rate of 1.525 per year to 16.1 billion in 2022. It is known as Canada's automotive capital and unsurprisingly manufacturing makes up the largest sector of the economy. Windsor's economy has been experiencing relatively strong growth in recent years, largely based on automotive manufacturing. In 2018, manufacturing employed 39,000 workers, 17,000 of which worked in automotive manufacturing. The next highest employer was health care and social services which employed 22,500 workers. As of 2018, the automotive sector accounted for 30% of Windsor's GDP and nearly a quarter of its employment. Windsor's manufacturing sector is closely tied to the health of the United States automotive sector (Arcand, et al., 2019). This does mean that if the automotive sector experiences a decline, Windsor is also likely to experience an outsized drag on its economy. For example, the decision by Fiat Chrysler Automobiles to cut a shift at its Chrysler Pacifica factory will cause the loss of 1500 jobs. This will also cause a ripple effect where factories that supply the plant will also need to reduce production (Arcand, et al., 2019).

Windsor's economy, more than any of the other case studies, is influenced by its close proximity to the United States. Located at the end of the 401 Highway, Windsor is host to the busiest land crossing between Canada and the United States. The Ambassador Bridge carries 60-70% of regional commercial traffic and 25% of the total

commercial traffic between Canada and the United States (The Center for Land Use Interpretation, 2015).

Windsor is home to two major post secondary institutions. The University of Windsor was founded in 1963 and has 16,000 undergraduate and graduate students. St. Clair college was founded in 1966 and has 12,000 students with 2,000 at its Windsor campus. The City also has a campus of College Boréal which offers post-secondary programs in French.

Regional Economic Development

Neither the City of Windsor nor Essex County have a dedicated economic development department. Instead, they outsource those responsibilities to the Windsor Essex Economic Development Corporation. The Windsor Essex Economic Development Corporation (WEEDC) was founded in 1958 as the sole economic development agency for the region. The WEEDC is responsible for investment attraction and retention in the City of Windsor, the townships of: Amherstburg, Kingsville, Lakeshore, LaSalle, Leamington, Tecumseh, and Essex, as well as Pelee Island. WEEDC receives around two-thirds of its funding from the City of Windsor and the rest comes Essex County and the Province of Ontario. It is governed by an 11 member board which is comprised of the Mayor of Windsor, the Warden of Essex County, a representative from the University of Windsor, and eight representatives of private local businesses (Strategy Corp, 2015).

Under the umbrella of WEEDC is the Windsor Essex Small Business centre (SBC). The SBC offers mentorship services to entrepreneurs hoping to start a business in the Windsor Essex area. The SBC also runs several programs on behalf of the Government of Ontario. Among these are Summer Company and Starter Company Plus. Summer

Company is a program which provides students aged 15-29 a \$3000 dollar grant to run a business over the summer. The Province connects students with local business leaders who provide hands on business training, advice, and mentorship (Small Business Centre, 2020). Starter Company Plus is a free program that provides entrepreneurs with hands on training and connects them with local mentors for experienced business advice. Participants are also given a fifteen-hour long course on the fundamentals of running a business. Finally, participants who successfully complete the program are given the opportunity to apply for a \$5000 grant to move forward with their new business (WindsorEssex Economic Development, 2018).

WEEDC has identified four areas of focus for its 2018-2022 strategic plan. These four areas are to Inform and Promote, Invest and Attract, Innovate and Advance, and Engage and Collaborate (WindsorEssex Economic Development, 2018). The WEEDC acknowledges that the automotive industry has provided the bedrock of Windsor's economic base. However, the WEEDC has acknowledged that this strategy is not likely to work in the long term.

Analysis

A City the size of Windsor does have the resources to support a comprehensive economic plan for multiple different industries. Windsor has been a leader in the automotive industry for many years. Windsor has already established a highly productive industrial in the automotive industry. They have highly trained personal, numerous manufacturing facilities, and are strategically located in close to proximity to other partners in the automotive industry. The Canadian automotive industry is currently in a state of flux with a shrinking manufacturing footprint and a restructuring of the Canadian

automotive companies. Increasingly, automotive manufacturing is incorporating technological innovations such as electrified vehicles and autonomous vehicles (Sweeney, 2020). Recognizing this, leaders in Windsor have been successful in obtaining funding from the Government of Ontario for the Autonomous Vehicle Innovation Network (AVIN). AVIN is led by the Institute for Border Logistics and Security and is supported by multiple collaborators including the University of Windsor, St. Clair College, WEtech Alliance, the City of Windsor, and private industry partners. AVIN provides access to specialized equipment and provides business advisory services to assist in the commercialization of automated vehicle technologies (WindsorEssex Economic Development, 2018). Windsor Essex has all of the infrastructure to move ahead with innovations in the automotive industry. It would be expected that advanced automotive manufacturing would be a major focus for the Five-Year Strategic Plan for WEEDC. However, this is not the case. The Five-Year Strategic Plan states that the focus for the Region for Growth and Emerging Industries is as follows advanced manufacturing including additive manufacturing, light weighting, CAV, automotive, automation and mobility; Health and Life sciences including pharmaceuticals and nutraceuticals; agri-business including greenhouse technology, automation, and cannabis; information technology including artificial intelligence, blockchain, cyber security, and mobility; and logistics and warehousing activities (WindsorEssex Economic Development, 2018). The fact that they have identified fifteen different industries as their focus indicates that they have not established a focus at all. In addition, the area where they have the greatest expertise and the longest track record, the automotive industry, is not emphasized in any way, other than being included in a list of fifteen industries.

The WEEDC has identified correctly that it will not be a successful economic strategy to build automobiles in the traditional way. Canada needs to recruit, develop, and retain the necessary talent and develop the necessary processes to develop the vehicle technology of the future including: electrified vehicles and advanced driver assistance systems (Sweeney, 2020). The car of the future will be a blend of traditional manufacturing processes that are used at this time and innovative technologies. Therefore, centres such as Windsor-Essex that have already developed expertise and infrastructure in traditional manufacturing are well situated to develop innovative technologies and to blend these with traditional manufacturing. This should be a major focus of the strategic plan. Therefore, the strategic plan is unfocused and does not build on strengths that are already established in Windsor Essex.

As previously discussed, its essential for an economic development strategy to clearly delineate how the waves of economic development policies are supported and integrated. It appears that Windsor-Essex did well with the first wave of economic development. It was largely with land use planning and typically support of smokestack industries that the large automotive industry in Windsor-Essex was created. There is considerable evidence that they provide the type of business supports that are needed in the second wave. They have done this through initiatives such as trade missions to Poland, South Korea, Mexico, South Korea, Germany, and India; the SBC, and the scaleup Financial bootcamp. However, its in the development of the third wave of economic development that they appear to be faltering. The third wave is in the development of clustered talent and working relationships that allow for innovation. Windsor-Essex has not put nearly enough resources into developing the third wave. The Windsor-Essex

regional development site of AVIN is only slated \$2.5 million over the next four years. This is inadequate funding to develop a cluster of talented experts. I was not able to find evidence of other third wave initiatives in Windsor. This contrasts with Kitchener-Waterloo which has Communitech and the Accelerator Centre.

For an economic development strategy to be effective all of the stakeholders need to agree on the strategy. There is evidence that the two major stakeholders in Windsor-Essex, the City of Windsor and the WEEDC, are not in agreement with their strategy. When an evaluation of the current state of economic development at Windsor-Essex was completed in 2015 the reviewers stated the following:

Most interviewees agreed that WEEDC and the City of Windsor do not currently align on strategy. This ranged from “not knowing what WEEDC strategy is’ to thinking it is “focused on ‘home run’ attraction files rather than ‘base-hit’ growth” (Strategy Corp, 2015)

In addition, a key component of the third wave is establishment of engagement and collaboration between businesses and between post-secondary institutions and businesses. However, the Framework for Action section of the Strategic plan for the WEEDC states that this should occur but does not provide any tangible actions for how this will be accomplished.

Also, as mentioned previously in this paper, it is essential for the three waves of economic development to be coordinated. I could not find evidence that this is occurring in Windsor Essex. Clearly the experts that are supported by AVIN should be working closely with the faculty at the University of Windsor and St. Clair College. However, the

strategic plan does not provide any directions as to how this should occur, and I could not find evidence that it is occurring. Therefore, it appears that Windsor-Essex will not fulfill its own economic development goals for the following reasons. The Strategic Plan for WEEDC is unfocused and does not emphasize areas of considerable economic and industrial strength. Insufficient resources are provided to support the development of knowledge networks required for third wave economic development policies. There does not appear to be a system to facilitate coordination and communication between stakeholders and has a consequence there is not alignment between the two major stakeholders the City of Windsor and Windsor Essex Economic Development Corporation.

Conclusions

Canada's economy has been increasingly shifting towards high skilled knowledge-based growth. While disruptions from the Covid-19 pandemic may have slowed down these changes temporarily, Canada economic engines will likely rely on knowledge-based clusters. Manufacturing in Canada has seen a massive increase the amount of competition over the last thirty years. Previous economic paradigms, which relied on measures to reduce the cost of operating, are no longer sufficient at ensuring long term economic growth.

Waterloo, Guelph, and Windsor have all done an excellent job of incorporating policies from the first and second waves of economic development. Each municipality has an industry which can form the basis of a knowledge cluster. It would be challenging to muster the resources to support multiple industries given a cluster's complex needs. The knowledge clusters in Guelph and Waterloo are supported by external organizations

which provide pooled expertise and attract talent related to their industry. By contrast, the support for the development of the automotive industry in Windsor is rather limited. Windsor has done a good of supporting major firms and has a large base of manufacturing which forms the bedrock of their economy.

All three municipalities have previously cited challenges in coordination as a problem in economic development. Only the Region of Waterloo seems to have implemented system changes to address this problem. In Waterloo, the roles of each economic stakeholder are clearly defined and there are mechanisms to measure strategic outcomes. The WREDC is a relatively young agency but it incorporates the goals of the regional municipalities and combines these into a coordinated strategic plan. This is easier for the Region of Waterloo than the other two case studies because Guelph and Windsor are single tier municipalities are distinct from their regional municipalities. Despite this both the City of Guelph and Wellington County coordinate to support the agri-technological sector. They have aligned goals but there is no single agency which is responsible for coordinating the City and the County. This is not necessarily a problem as they have clearly been successful without it, but businesses have cited confusing government structures as a disincentive to invest. Finally, it does not seem that there has been significant effort to align the goals of the WEEDC and the City of Windsor, despite a report citing that has a significant challenge to economic development. Windsor has the seeds of a knowledge-based cluster but has not coordinated its efforts to support it in a systemic way.

Major metropolises such as Vancouver, Toronto and Montreal have the resources to support multiple knowledge clusters. These clusters will not form unless there is a

critical mass of people to support a particular industry. Medium sized municipalities, such as the ones studied for this paper, will have more success if they focus their efforts on one or two industries where they already have some locational advantages. Municipalities are limited in their powers to direct economic development. However, they are able to facilitate coordination between economic stakeholders, As seen in the cases of Guelph and Waterloo a municipality may be highly successful if it does so.

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